

Application No.: 10/650,323

Docket No.: UC0220USNA

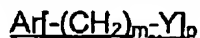
Listing of Claims

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1-8 (Canceled)

9. (Currently Amended) ~~The composition of Claim 1,~~ A luminescent organometallic complex composition of matter, the composition comprising
at least one transition metal, M, that produces phosphorescent emission at room temperature;

at least one first monoanionic bidentate ligand coordinated through a nitrogen on a heteroaromatic ring and a carbon which is part of an aromatic group; and
at least one second ligand, coordinated through a carbon atom on an aromatic group and having Formula III

Formula IIIwhereinAr is an aromatic group,Y is a group having a heteroatom capable of coordinating to metal M,m is an integer from 1 through 20,p is an integer from 1 through 5,and further wherein one or more of the hydrogens in $(\text{CH}_2)_m$ can be replaced with D or F[()], wherein Y is selected from NR^2_2 , OR^2 , SR^2 , and PR^3_2 , wherein R^2 is the same or different at each occurrence and is H or $\text{C}_n\text{H}_{2n+1}$; and R^3 is the same or different at each occurrence and is selected from H, R^2 , and Ar.

10-14 (Canceled)

15. (Currently Amended) The composition of Claim ~~[[1]]~~ 9, wherein M is iridium, the first ligand is phenylpyridine with substituents, the second ligand is σ,σ' -diphenylphosphino-m-xylene.

16-29 (Canceled)

30. (Previously Presented) A luminescent organometallic complex composition of matter, the composition comprising

Iridium;

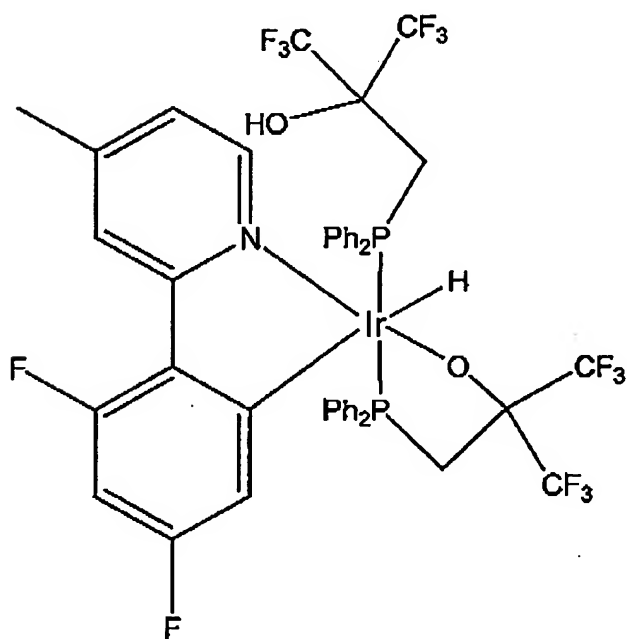
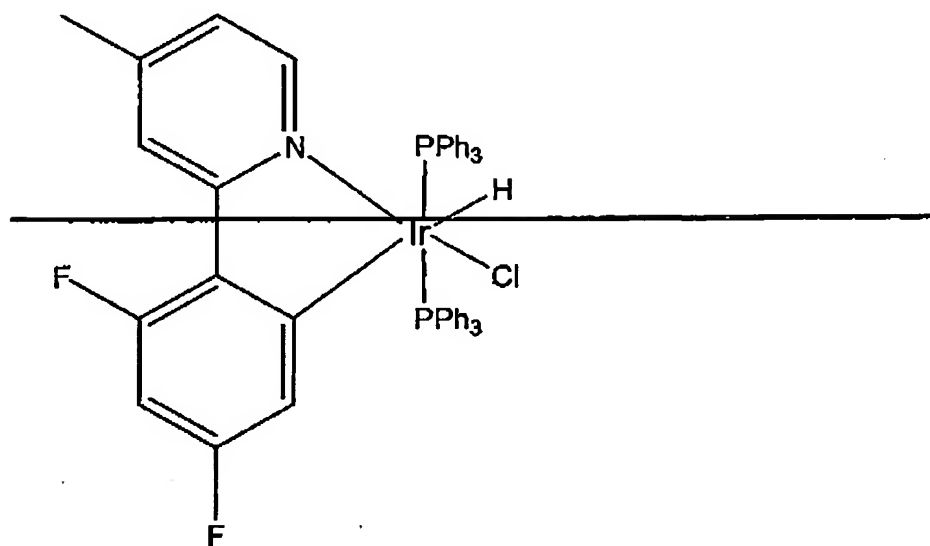
at least one first ligand which is a phenylpyridine with substituents;

at least one second hydride ligand; and

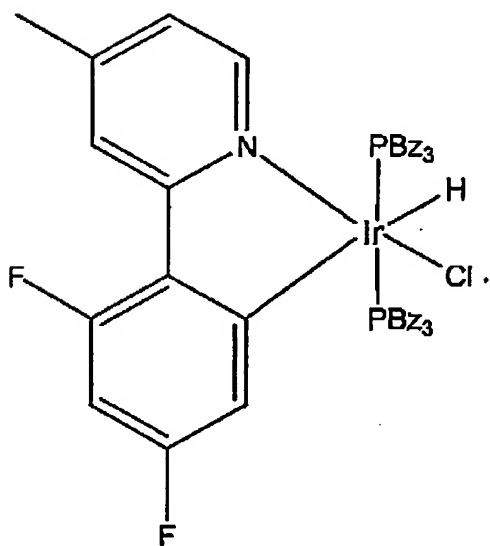
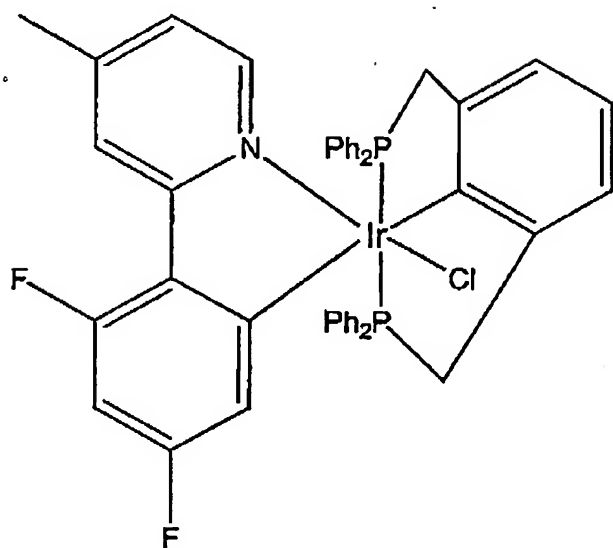
two diarylbenzylphosphine ligands.

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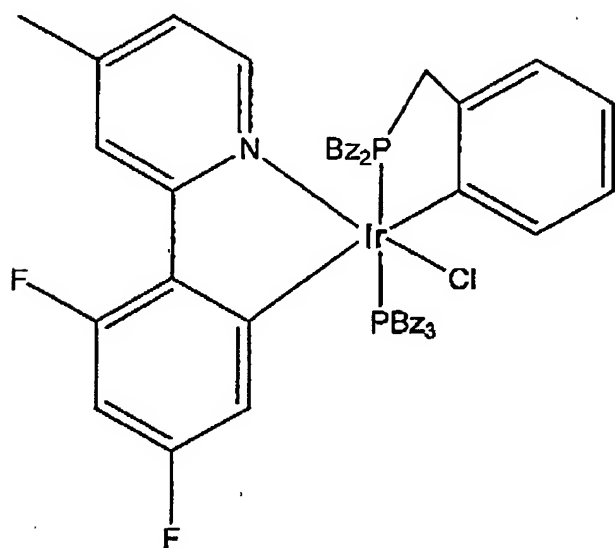
31. (Currently Amended) A luminescent organometallic complex composition of matter selected from:



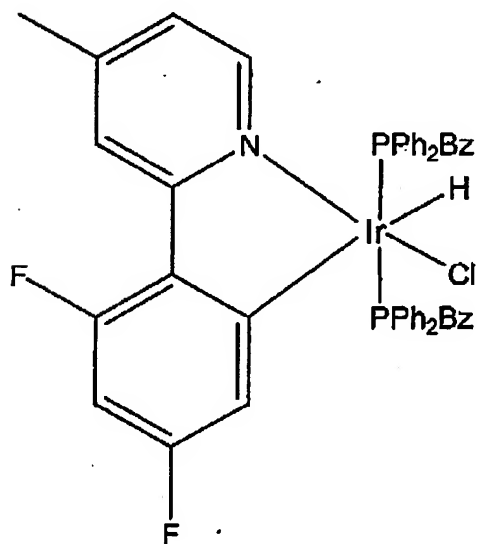
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, or



where Ph is phenyl and Bz is benzyl.

32. (Currently Amended) The composition of Claim [[1]] 9, wherein Ar is phenyl, m is 1, Y is P(Ar)₂, and p is 1 or 2.